

NSLS JRA Priority List

Job	Description	Hazards	JRA #	Priority
Operate an accelerator	The set-up or operation of a NSLS accelerator (e.g. LINAC-Booster, x-ray ring, DUV-FEL) for studies or routine use.	Radiation exposure, equipment damage or fire	NSLS-JRA-030	HIGH
Conduct accelerator or beam line commissioning and fault studies	The operation of a beam line or accelerator for the express purpose of confirming that radiological conditions and other performance parameters are acceptable	Radiation exposure, Visible/UV exposure, RF	NSLS-JRA-028	HIGH
Use of Laboratory Chemicals	Work with carcinogens, listed chemicals, Hg, peroxidizables, pyrophoric chemicals, oxidizers, flammables and combustibles.	Chemical toxicity; chemical sensitivity; chemical reaction; fire	NSLS-JRA-020	HIGH
Generation of hazardous and industrial waste	Activities requiring the collection, storage, labeling and disposal of waste	Chemical reactions; toxicity; fire; sensitivity	NSLS-JRA-026	HIGH
Operate a Beamline	The set-up or operation of a NSLS beam line (e.g. VUV, x-ray ring, DUV-FEL) for studies or routine use	Radiation exposure (Ionizing and Non Ionizing), trip hazard, elevated work, electrical shock, struck by object; cut by sharp object,	NSLS-JRA-029	HIGH
Work on energized electrical equipment in range B with exposed conductor	Voltage Testing and Troubleshooting	Electrical shock; injury from reflex	NSLS-JRA-003	HIGH
Perform Lockout/Tagout (LOTO)	Perform LOTO on electrical or mechanical systems	Electrical shock, mechanical stored energy, injury from reflex	NSLS-JRA-005	HIGH
Walking	Normal movement throughout the Department and grounds	falls; struck by object, tripping, slipping, sprains, fractures	NSLS-JRA-038	MEDIUM
Material handling – mechanical	Work with devices used to lift and move heavy objects, e.g. use of lifts, cranes, fork-lifts	Overexertion; Repetitive motion; being caught or compressed by machinery; being struck by object; cut by sharp object	NSLS-JRA-019	MEDIUM
Work with Magnetic Fields	Work with magnets with field exposures exceeding 5 G	Non-ionizing radiation exposure; struck by object	NSLS-JRA-032	MEDIUM

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Work with vacuum systems	Work with systems subject to vacuum pumps and pressures less than atmospheric	Electrical shock, overexertion from lifting, vacuum implosion, injury from reflex	NSLS-JRA-008	MEDIUM
Working in an ODH area	Work in a room or facility identified as an ODH area	Asphyxiation	NSLS-JRA-037	MEDIUM
General Cryogenic Work	Filling dewars and cryostats with LN ₂ and LHe; testing of components intended for cryogenic operation; cold fitting of mechanical parts	Contact with temperature; ODH; being struck by object; falls to lower level	NSLS-JRA-010	MEDIUM
General Flammable Gas Work	Use of flammable gases, e.g. detector gases, brazing and welding use	Struck by object; ODH/toxicity/flammability concerns; overexertion	NSLS-JRA-011	MEDIUM
Work with cooling water systems	Installation and maintenance of cooling water systems, including the handling, treatment or release of NSLS or SDL cooling waters.	Release of pollutants to the environment, exposure to chemicals, electrical shock or mechanical hazards	NSLS-JRA-012	MEDIUM
Hand Tool Use	Use of non-powered hand tools	Being struck by object; struck against object; cuts by sharp object; repetitive motion; falls on same level	NSLS-JRA-014	MEDIUM
Machine Shop Work	Operation of lathes, drill presses, etc.	Overexertion; Repetitive motion; intense visual acuity; being caught or compressed by machinery; being struck by object; cut by sharp object	NSLS-JRA-017	MEDIUM
Use of portable ladder	Climbing using ladder at beam lines or in lab.	Falls to lower level,	NSLS-JRA-036	MEDIUM
General Office Work	Routine office work	Ergonomics, VDT, lifting, trips	NSLS-JRA-040	MEDIUM
Work with compressed gas cylinders or systems.	Use of compressed gas cylinders, transport and storage, for pressure regulated applications in gas systems.	Struck by object; ODH/toxicity concerns; overexertion	NSLS-JRA-009	MEDIUM
Electrical & Electronic Shop Work	Assembly of circuit boards, enclosures, mounting hardware, use of hand and bench tools, soldering, wire wrapping, cleaning agents, testing equipment	Being struck by object; struck against object; cuts by sharp object; repetitive motion; falls on same level; contact with temperature; chemical sensitivity; fire	NSLS-JRA-001	MEDIUM

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Hand Held Power Tool Use	Use of plug in and battery powered hand-held tools	Being struck by object; struck against object; cuts by sharp object; repetitive motion; falls on same level	NSLS-JRA-013	MEDIUM
Work with lasers	work with Class 2, 3a, 3b, or 4 lasers	Eye injury; skin burns; fires; chemical sensitivity	NSLS-JRA-033	MEDIUM
Material handling - manual	Lifting or positioning of objects or equipment weighing greater than 30 pounds	Muscular and skeletal injury; being struck by dropped object; falls on same or lower level	NSLS-JRA-018	MEDIUM
Elevated work	Work above 4 feet	Falls to lower level,	NSLS-JRA-035	MEDIUM
BNL Vehicle Use	Vehicle use for moving materials and personnel	Roadway accidents	NSLS-JRA-039	MEDIUM
Radioactive Material Use (Dispersible)	Use of unsealed radioactive material with the potential for spread of contamination	Radiation exposure	NSLS-JRA-023	MEDIUM
Use of commercial chemical products	Use of typical products such as glues, cleaning agents or solvents, such as epoxy, alcohol, acetone, etc.	Chemical toxicity; chemical sensitivity; chemical reaction; fire	NSLS-JRA-021	LOW
Work with Lead	Use of lead for shielding	Material toxicity; overexertion; struck by object	NSLS-JRA-025	LOW
Mechanical assembly of accelerator or beam line components	Assembly, positioning, installation, testing of components	Overexertion; Repetitive motion; struck by object; cut by sharp object, radiation exposure	NSLS-JRA-006	LOW
Resistive heating	Resistive heating for vacuum bakeout using heating tapes or cal rods	Burn, electrical shock	NSLS-JRA-007	LOW
Work with enclosed RF systems	Work with equipment generating RF (does not include synchrotron radiation)	Radiation exposure; RF leakage and exposure	NSLS-JRA-031	LOW
Interlock Testing	Required periodic testing of radiological or laser interlock systems requiring access to electrical and electronic components	Overexertion; falls to same and lower levels; electrical shock; being struck by object	NSLS-JRA-034	LOW
Radioactive Source Use	Use of sealed radioactive sources	Radiation exposure	NSLS-JRA-024	LOW
Radioactive and mixed waste	Activities requiring the collection, storage, labeling and disposal of radioactive and mixed waste.	Radiation exposure, chemical reactions; toxicity; fire; sensitivity	NSLS-JRA-027	LOW
Transporting Chemicals and Radioactive Materials	Materials, samples and radioactive sources transported within BNL site	Chemical toxicity; radiation exposure; roadway accidents	NSLS-JRA-022	LOW

Job	Description	Hazards	JRA #	Priority
General Instrumentation/Test Equipment	Oscilloscopes, DVM, power spectrum analyzers, meters, frequency analyzers	Ergonomics, lifting, Video Display Terminal (VDT)	NSLS-JRA-015	LOW